

S/N 10/799,860

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Vipul Ved Prakash et al.	Examiner: Jeffrey Swearingen
Serial No.:	10/799,860	Group Art Unit: 2145
Filed:	March 12, 2004	Docket: 2710.007US1
Title:	Method and an apparatus to screen electronic communications	

APPEAL BRIEF UNDER 37 CFR § 41.37

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The Appeal Brief is presented in response to the Notice of Panel Decision from Pre-Appeal Brief Review mailed on September 10, 2008 and further in support of the Notice of Appeal to the Board of Patent Appeals and Interferences, filed on August 15, 2008, from the Final Rejection of claims 1-20 of the above-identified application, as set forth in the Final Office Action mailed on April 15, 2008.

The Commissioner of Patents and Trademarks is hereby authorized to charge Deposit Account No. 19-0743 in the amount of \$540.00 which represents the requisite fee set forth in 37 C.F.R. § 41.20(b)(2). The Appellants respectfully request consideration and reversal of the Examiner's rejections of pending claims.

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1. REAL PARTY IN INTEREST

The real party in interest of the above-captioned patent application is the assignee, CLOUDMARK, INC. of 500 3rd Street - Suite 265, San Francisco, California 94107, as evidenced by the assignment from inventors Vipul Prakash, et al. recorded in the U.S Patent and Trademark Office on August 2, 2004 on Reel 015631, starting at Frame 0934.

2. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Appellant that will have a bearing on the Board's decision in the present appeal.

3. STATUS OF THE CLAIMS

The present application was filed on March 12, 2004 with claims 1-20. In the response to the Non-Final Office Action mailed October 18, 2007, Appellants amended claims 1, 4-6, and 10-15. In response to the Final Office Action mailed April 15, 2008, Appellants did not amend, add, or cancel any claims. **Claims 1-20 stand twice rejected, remain pending and are the subject of the present Appeal.**

4. STATUS OF AMENDMENTS

No amendments have been made subsequent to the Final Office Action dated April 15, 2008.

5. SUMMARY OF CLAIMED SUBJECT MATTER

Aspects of the present inventive subject matter may include, but are not limited to, a method and apparatus to screen electronic communications.

INDEPENDENT CLAIM 1

Some aspects of the present inventive subject matter include, but are not limited to a method that includes extracting (FIG 1. Op. 110; ¶ [0018], page 6, lines 5-10) URLs (¶ [0018], page 6, lines 3-10) from an electronic communication (FIG 1. No. 101; ¶ [0003], page 1, lines 16-20; ¶ [0017], page 5, lines 20-23). The URLs are analyzed (¶ [0002], page 2, lines 5-8) to determine whether the electronic communication is of a first predetermined category (¶ [0018], page 6, lines 1-2; ¶ [0024], page 8, lines 7-9), the analyzing comprising generating (FIG 1. Op. 120; ¶ [0020], page 6, lines 20-24; ¶ [0021], page 6, lines 5-14; ¶ [0024], page 8, lines 9-12) one or more signatures (¶ [0020], page 6 line 21 to page 7 line 4) using a length (¶ [0021], page 7, lines 9-14) of the electronic communication and the URLs extracted.

INDEPENDENT CLAIM 10

Some aspects of the present inventive subject matter include, but are not limited to a computer-readable storage medium (¶ [0038], page 13, lines 18-23) that provides instructions (¶ [0038], page 13, lines 22-23) that, if executed by a processor (¶ [0037], page 13, lines 7-14), will cause the processor to generate (FIG 1. Op. 120; ¶ [0020], page 6, lines 20-24; ¶ [0021], page 6, lines 5-14; ¶ [0024], page 8, lines 9-12) one or more signatures (¶ [0020], page 6 line 21 – page 7 line 4) of an electronic communication (FIG 1. No. 101; ¶ [0003], page 1, lines 16-20; ¶ [0017], page 5, lines 20-23) using a length (¶ [0021], page 7, lines 9-14) of the electronic communication and URLs (¶ [0018], page 6, lines 3-10) in the electronic communication and determine (¶ [0013], page 5, lines 1-4) whether the electronic communication is of a first predetermined category (¶ [0018], page 6, lines 1-2; ¶ [0024], page 8, lines 7-9) using the one or more signatures generated.

INDEPENDENT CLAIM 15

Some aspects of the present inventive subject matter include, but are not limited to system (FIG. 2; ¶ [0031], page 11, lines 1-8) that is comprised of a plurality of databases (FIG 2. Nos. 230, 235; ¶ [0031], page 11, lines 3-8) to store a plurality of predetermined signatures (¶ [0024], page 8, lines 1-12) of a plurality of known electronic communications (¶ [0024], page 8, lines 4-7) of a first predetermined category (¶ [0024], page 8, lines 4-9). The system is further comprised of a server (FIG 2. No. 210; ¶ [0031], page 11, lines 1-8) coupled to the plurality of databases, including a memory device (¶ [0031], page 11, lines 1-8; ¶ [0040], page 14, lines 9-14) to store a plurality of instructions (¶ [0038], page 13, lines 22-23) and a processor (¶ [0037], page 13, lines 7-14) coupled to the memory device to retrieve the plurality of instructions from the memory device and to perform operations (¶ [0036], page 12, lines 17-23) in response to the plurality of instructions. The operations comprise extracting URLs (¶ [0018], page 6, lines 3-10) from an electronic communication (FIG 1. No. 101; ¶ [0003], page 1, lines 16-20; ¶ [0017], page 5, lines 20-23), generating (FIG 1. Op. 120; ¶ [0020], page 6, lines 20-24; ¶ [0021], page 6, lines 5-14; ¶ [0024], page 8, lines 9-12) one or more signatures (¶ [0020], page 6 line 21 – page 7 line 4) using a length (¶ [0021], page 7, lines 9-14) of the electronic communication and the URLs extracted and comparing (¶ [0024], page 18, lines 3-4) one or more of the one or more signatures generated against the plurality of predetermined signatures store in the plurality of databases to determine whether the electronic communication is of the first predetermined category.

This summary does not provide an exhaustive or exclusive view of the present subject matter, and Appellant refers to each of the appended claims and its legal equivalents for a complete statement of the invention.

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

§102 Rejection of the Claims

Claims 1, 5, 10 and 15 were rejected under 35 U.S.C. § 112, second paragraph, for indefiniteness.

§102 Rejection of the Claims

Claims 1-4 and 6-20 were rejected under 35 U.S.C. § 102(a) for anticipation by Aronson et al. (US. Patent No. 6,654,787).

7. ARGUMENT

In the Final Office Action dated April 15, 2008, the Examiner rejected the claims under the second paragraph of 35 U.S.C. § 112 for indefiniteness and under 35 U.S.C. § 102(a) for anticipation by Aronson et al. (U.S. Patent No. 6,654,787, hereinafter referred to as the Aronson reference). Both rejections are heavily dependent upon how the word ‘length’ is interpreted.

During patent examination, the US PTO gives claims “their broadest reasonable interpretation in light of the specification.” (MPEP 2111.01). More specifically, “this means that the words of the claim must be given their plain meaning unless the plain meaning is inconsistent with the specification.” (MPEP 2111.01) Applicants respectfully submit that the Examiner is not using the “plain meaning” of the word “length”, but is instead using a more obscure meaning of the word. The Examiner’s usage of this more obscure meaning of the word “length” is not reasonable interpretation since it is inconsistent with the usage of the word “length” within the written specification of the application.

Plain Meaning of the Term “Length”

The Merriam-Webster Online Dictionary provides six different definitions for the word “length” as follows:

Main Entry: length

Pronunciation: \ˈlɛŋ(k)th, ˈlɛn(t)th\

Function: *noun*

Inflected Form(s): *plural lengths* \ˈlɛŋ(k)ths, ˈlɛn(t)ths, ˈlɛŋ(k)s\

Etymology: Middle English lengthe, from Old English lengthu, from lang long

Date: before 12th century

- 1 a: the longer or longest dimension of an object b: a measured distance or dimension <10 feet in length> — see metric system table, weight table c: the quality or state of being long
- 2 a: duration or extent in time b: relative duration or stress of a sound
- 3 a: distance or extent in space b: the length of something taken as a unit of measure <his horse led by a length>
- 4: the degree to which something (as a course of action or a line of thought) is carried — often used in plural <went to great lengths to learn the truth>
- 5 a: a long expanse or stretch b: a piece constituting or usable as part of a whole or of a connected series : section <a length of pipe>
- 6: the longer or vertical dimension of a piece of clothing —often used in combination <elbow-length sleeves>

(<http://www.merriam-webster.com/dictionary/length>)

The Applicants submit that the “plain meaning” for the word “length” is captured by the first three definitions presented above. The usage of the word “length” in the claims in light of the specification is most accurately reflected by the first and third definitions listed above. The Examiner contends that that the fifth definition of “length” set forth above is a reasonable interpretation of the “plain meaning” of the word. The Applicants respectfully traverse and submit that the meaning the of “length” being used by the Examiner is not a “plain meaning” but a more obscure meaning of the term “length”.

Examiner’s Assigned Meaning of the Term “Length” is Inconsistent with the Specification

Even if one were to stipulate that the more obscure meaning of “length” used by the Examiner falls within the “plain meaning” of the term, such a usage of the term is not a “reasonable interpretation in light of the specification” but is instead “inconsistent with the specification”. In support of the Examiner’s view, the Examiner stated that “Applicant did not

explicitly define length as a numerical value” in the Advisory Action dated July 2, 2008

Furthermore, the Examiner stated that

It is reasonable to construe generating a signature based on the content of the electronic communication. It is reasonable to call the content a "length" because data is transmitted as a stream, and a section of this data is a portion or "length" of the data. Applicant's claims are broad enough to encompass this reading, and Applicant's specification and responses fail to expressly limit the construction of "length" to a numerical value.

The Applicants respectfully traverse and submit that the Examiner's view as to what a "broadest reasonable interpretation in light of the specification" means is not reasonable in light of the specification. In the Examiner's view, any meaning of a word that is not explicitly or expressly denied is a "reasonable interpretation". This clearly cannot be true. Virtually all English words have multiple different meanings. To explicitly deny all possible unintended alternative word meanings would require a Herculean effort by patent drafters.

The specific meaning of an English word from the multiple different possible meanings is determined by the context in which the English word is used. Although there may still be some ambiguity since more than one particular meaning may be consistent with the context, the set of possible meanings becomes limited in view of the context. The MPEP uses this system of term interpretation since the MPEP states that "the words of the claim must be given their plain meaning unless the plain meaning is inconsistent with the specification." (MPEP 2111.01)

In the present case, the Examiner's interpretation of the term "length" is "inconsistent with the specification" since there is no non numerical usage of the word "length" in the written specification. Instead, the term "length" is only used in a numerical form in the written specification. For example, paragraph [0021] explicitly sets forth one particular equation that may be used to calculate the (numerical) "length" value of the electronic communication. Referring to that equation, the Examiner noted that the equation was just "an example of how 'the length *may be* computed'" emphasizing that "may be" does not limit the term "length" to a numerical value." However, the Examiner is ignoring the word that follows the words "may be". The full phrase is "may be *computed*". With the full phrase "may be computed", it is clear that in this context this sentence was only meant to indicate that the "length" value *may be computed* using other numerical equations. For example, the original (numerical) length of the electronic

communication (origin_length) may be used as a (numerical) “length” value used to create a signature.

The only use of the term “length” in the specification that comes even remotely close to appearing to be a non-numerical version would be the usage of the term “length” in the last sentence of paragraph [0020]. That sentence states “Furthermore, processing logic may generate one or more signatures based on the URLs extracted and the length of the electronic communication.” But even this usage of the word “length” is clearly numerical since it refers to “the length of the electronic communication”. If a sub-section of the electronic communication was intended (the meaning the Examiner is attempting to use), that sentence would have instead referred to “a length of the electronic communication”. Such a usage would be consistent with the fifth definition of “length” from the Merriam-Webster’s Online Dictionary set forth earlier which used the example of “a length of pipe”. But that is not how the word “length” was used in the specification.

The Examiner may point to the fact that some of the currently pending claims (such as claim 1) do refer to “a length of the electronic communication”. However, the use of the word “a” in the claims is only due to the strict rules for defining antecedent basis within U.S. patent claims. The usage of the terms in the claims are to be interpreted in light of the specification and all the usages of the term “length” in the specification are clearly for the numerical definition for the term “length”. If the Examiner does not object under 35 USC § 112, second paragraph, the Applicants are willing to change the phrase “a length” to “the length” in the claims to clarify that the numerical usage of the term “length” is intended.

SUMMARY

In view of the above arguments, Applicants submit that it is clear the term "length" is being used with its numerical definition. With this interpretation, Applicants submit that the claims are not indefinite such that the rejection of the claims under the second paragraph of 35 U.S.C. § 112 should be withdrawn. Furthermore, with this interpretation, the Aronson reference does not render the claims unpatentable such that the rejection of the claims under 35 U.S.C. § 103 should also be withdrawn.

Respectfully submitted,

SCHWEGMAN, LUNDBERG & WOESSNER, P.A.

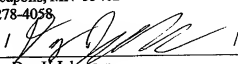
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8. CLAIMS APPENDIX

Claims 1-20, as of April 15, 2008 (Date of Final Office Action).

1. A method comprising:
extracting URLs from electronic communication; and
analyzing the URLs extracted to determine whether the electronic communication is of a first predetermined category, said analyzing comprising generating one or more signatures using a length of the electronic communication and the URLs extracted.
2. The method of claim 1, wherein extracting the URLs comprises extracting at least one of a hostname, a domain name, a subsection of a domain relative link, and an Internet Protocol (IP) address from the electronic communication.
3. The method of claim 1, further comprising performing a predetermined operation on the electronic communication if the electronic communication is determined to be of the first predetermined category.
4. The method of claim 1, wherein analyzing the URLs comprises:
selecting one or more of the one or more signatures generated; and
comparing the selected signatures against a plurality of predetermined signatures generated from a plurality of known electronic communications of the first predetermined category.
5. The method of claim 1, wherein generating the one or more signatures further comprises:
computing a first hash based on the length of the electronic communication;
computing a second hash based on the URL's extracted; and generating a signature by concatenating the first hash to the second hash.

6. The method of claim 4, wherein generating the one or more signatures further comprises using at least one of the extracted URLs as at least one of the one or more signatures.

7. The method of claim 4, wherein generating the one or more signatures further comprises generating the one or more signatures based on at least one of a protocol, a hostname, a domain name, a subsection of a domain relative link, and an Internet Protocol (IP) address from the electronic communication.

8. The method of claim 4, further comprising classifying the electronic communication to be of the first predetermined category if one of the selected signatures matches one of the plurality of predetermined signatures.

9. The method of claim 4, wherein the plurality of predetermined signatures is derived from a plurality of electronic documents reported via a collaborative submission mechanism.

10. A computer-readable storage medium that provides instructions that, if executed by a processor, will cause the processor to perform operations comprising:
generating one or more signatures of electronic communication using a length of the electronic communication and URLs in the electronic communication; and
determining whether the electronic communication is of a first predetermined category using the one or more signatures generated.

11. The computer-readable storage medium of claim 10, wherein determining whether the electronic communication is of the first predetermined category comprises:
selecting one or more of the one or more signatures generated based on a plurality of predetermined criteria;
comparing the selected signatures against a plurality of predetermined signatures; and

classifying the electronic communication to be of the first predetermined category if one of the selected signatures matches one of the plurality of predetermined signatures.

12. The computer-readable storage medium of claim 11, wherein selecting one or more of the one or more signatures generated comprises selecting a signature if the signature represents a domain that was registered within a predetermined period of time.

13. The computer-readable storage medium of claim 11, wherein selecting one or more of the one or more signatures generated comprises selecting signatures representing one or more of a protocol, a hostname, a domain name, and a subsection of a domain relative link having a predetermined string of letters.

14. The computer-readable storage medium of claim 10, wherein the operations further comprise extracting the URLs from the electronic communication.

15. A system comprising:
a plurality of databases to store a plurality of predetermined signatures of a plurality of known electronic communications of a first predetermined category; and
a server, coupled to the plurality of databases, including:
a memory device to store a plurality of instructions; and
a processor, coupled to the memory device, to retrieve the plurality of instructions from the memory device and to perform operations in response to the plurality of instructions, the operations comprising:
extracting URLs from electronic communication generating one or more signatures using a length of the electronic communication and the URLs extracted; and
comparing one or more of the one or more signatures generated against the plurality of predetermined signatures stored in the plurality of databases to determine whether the electronic communication is of the first predetermined category.

16. The system of claim 15, wherein the URLs comprises at least one of a hostname, a domain name, a subsection of a domain relative link, and an Internet Protocol (IP) address.

17. The system of claim 15, wherein the operations further comprise selecting the one or more of the plurality of signatures based on a plurality of predetermined criteria.

18. The system of claim 15, wherein the operations further comprise performing a predetermined operation on the electronic communication if the electronic communication is determined to be of the first predetermined category.

19. The system of claim 15, further comprising a database, coupled to the server, to store a plurality of reports from which the plurality of predetermined signatures are generated.

20. The system of claim 15, wherein the plurality of databases are in a remote location from the server.

9. EVIDENCE APPENDIX

None.

10. RELATED PROCEEDINGS APPENDIX

None.